



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/585,766

07/12/2006

Masashi Onishi

58546.00030

7887

32294

7590

02/20/2009

SQUIRE, SANDERS & DEMPSEY L.L.P.
8000 TOWERS CRESCENT DRIVE
14TH FLOOR
VIENNA, VA 22182-6212

EXAMINER

LUK, EMMANUEL S

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

02/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,766	Applicant(s) ONISHI ET AL	
	Examiner EMMANUEL S. LUK	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The indicated allowability of claim 3 is withdrawn in view of the newly discovered reference(s) to EP 1382429 in view of JP 11-170319. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The prior art of record fails to teach an injection molding unit with a motor having a brake unit that also drives the ejector apparatus, the ejector apparatus having a return spring to bias the ejector pin opposite the direction the ejector pin is projected, the brake unit generating the torque greater than the biasing force of the return spring.

3. Claims 1, 4-6, 8-10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1382429 in view of JP 11-170319.

EP '429 teaches the use of a control system of a servomotor 4 for driving an ejector rod of an ejector unit and the ejector rod 15 presses against an ejector plate 12 against the force of a spring for during the ejector plate 12 from a position where the ejector rod 15 abuts against ejector plate 12. EP '429 also teaches the use of a mold clamping servomotor for driving the mold platen, see [0025].

EP '429 fails to teach the motor having a brake unit, electromagnetic brake, and hollow output shaft.

JP '319 teaches an injection molding machine with a motor and brake unit 16, the brake unit includes an electromagnet 35, the brake unit also having a hollow output shaft, see Figure 6, element 106. JP '319 already teaches a motor with brake unit for driving an injection apparatus.

It would have been obvious for one of ordinary skill in the art to modify EP '429 with a motor having a brake unit as taught by JP '319 to improve in controlling the amount of torque of the servomotor.

One of ordinary skill in the art would recognize the need for the brake unit to generate greater torque over the torque provided by the motor such that it would sufficiently brake the motor and drive unit.

4. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1382429 in view of JP 11-170319 as applied to claims 1, 4-6, and 8-13 above, and further in view of JP 2003-117970.

JP '319 fails to teach the controllers such as driving circuit.

JP '970 shows the use of controllers for an electromagnetic brake used in an injection molding machine, the brakes being controlled according to the time sequence, see Figure 3. It would have been obvious for one of ordinary skill in the art to modify JP '319 with a controller taught by JP '970 that allows for exact timing for control of the brakes and for the operation of the machine.

5. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1382429 in view of JP 11-170319 as applied to claim 8 above, and further in view of Iwatsuki (4781080).

EP '429 in view of JP '319 fails to teach a brake cover attached to the frame and rotational speed detection part.

Iwatsuki teaches sensors known as output shaft sensor 82 for detecting a rotation speed of the output shaft 70, among other sensors that are controlled by a computer in an automatic transmission, thereby allowing for control of the engine torque.

It would have been obvious for one of ordinary skill in the art to modify EP '429 with including rotational speed detection part as taught by Iwatsuki for detecting the rotational speed of the output shaft thereby allowing for the computer to better control the torque.

In regards to the brake cover being open and strip-shaped, it would have been obvious for one of ordinary skill in the art to modify the brake cover of EP '429 in view of JP '319 with the cover being open so that it would allow for ease of access for maintenance and for access of the rotational speed detection part for monitoring.

Response to Arguments

6. A new rejection has been made in light of newly found references. The previously indicated allowable subject matter have been withdrawn and the new rejections address the features as shown above.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. EP 1205291 A1

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMMANUEL S. LUK whose telephone number is (571)272-1134. The examiner can normally be reached on Monday-Fridays from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yogendra N Gupta/
Supervisory Patent Examiner, Art Unit 1791

EL